

# User manual for BLC07 controller speedometer

## 1. Preface

Your respected customers, to correctly operate the electric bicycle, please read the handbook attentively, Comparing with other same type product, the KT-LCD owns the following exclusive function.

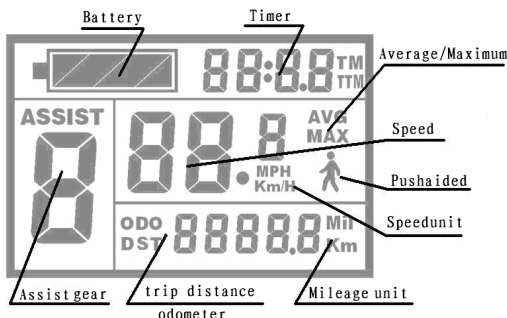
1.1 Timing function. The timing function starts when the bicycle runs and stops when the bicycle stops running, and equipped with single-time timing and progressive time timing function.

1.2 Gear saving function. For the user convenience, the KT-LCD apparatus will recover to the gear when closes.

1.3 Advanced setup function. use the advanced setup function, it is possible to make the controllers matches all the serial motor, and reach the optimum matching of the apparatus, controller and the motor ,and could also select the optimum power-aided mode. This function is only usable to professional technician.

## 2. Apparatus display

2.1 Display under common running condition (Refer to illustration 1)



battery indicator, trip time(TM), motor power ratio(ASSIST), current speed, trip distance (DST), 6Km/h assistant power mode, electrical system malfunction code..

2.2 Riding history data view (Refer to illustration 1)

total trip time(TTM), odometer(ODO), maximum speed (MAX), , average speed (AVG).

## 3. Button definition

KT\_LCD Apparatus panel is mounted with three buttons, the centered button is marked with SW. The upward arrow is marked with UP, and the downward arrow is marked with DOWN.

## 4. General operating

### 4.1 Open/Shutdown

Press the button SW, then the apparatus enter the normal operating condition, and the working power is supplied. Under the normal operating condition, long-press the SW, the power supply will shutdown. When the bicycle stops and no operation within five successive minutes, the apparatus will automatically closed.(Under the closed condition, there is no power consumption for the apparatus and the controller)

### 4.2 Change assistant power(or change gear)

Under normal operating condition, press button UP or DOWN to adjust the assistant power or gear to change the outcoming power. The gear scope is 1~5, with the gear 1 as the lowest power, the gear 5 as the highest power. (Every time open the apparatus, the gear will recover to the setting when closes last time)

### 4.3 Push-aided gear

It is possible to use the 6km/h assistant power when push the bicycle, long-press the button DOWN, the push-aided indicator flashes, and the bicycle runs at speed less than 6km/h. Release the DOWN button the push-aided function will suspend

### 4.4 Back lighting

Long-press the button UP, the back lighting will start (if the controller has been connected to the front light, the front light will start at the same time), long-press the button UP again, then the back lighting will close (if the controller has been connected to the front light, the front light will close at the same time).

## 5. Trip data view and remove

### 5.1 Trip data under running condition

Under normal condition (non-setup condition), the timing indicator displays the trip time, mile indicator displays the trip distance, the gear indicator displays the gear grade, speed indicator displays the speed(Km/H or MPH)

### 5.2 History trip data view

Short-press the button SW will enter the history trip data view function, with TTM and ODO appears first. The user could press the button UP or DOWN to

view the maximum speed, average speed. Short-press the button SW to exit the data view mode (or it will automatically exit after five minutes riding)

### 5.3 Method to remove single distance and the single riding time

5 seconds after turning on, under the condition when the meter displays a single time (TM) and a single distance (DST) environment. Press on the UP and DOWN key for 3 seconds at the same time, then both of the single time and single distance are flashing, press on the SW key within 5 seconds to remove the records of single time and single distance.

## 6. Battery capacity indicator

### 6.1 Battery capacity indicator

The apparatus could automatically identify the rest battery capacity for the specified 36 volt or 24 volt battery matching with the controller. When the rest battery capacity is more than 70%, all the four sections will lighten up, when the battery capacity decreases, the four sections will extinguish in turn, when the rest battery is less than 15%, all the four sections will extinguish. When the controller closes for the reason of power lack, the LCD battery indicator will flash to show the battery capacity lack (indicating the closing condition for the battery capacity lack).

## 7. User setup

### 7.1 User setup

User setup items: a .maximum speed; b. wheel diameter selection(16-28inch); c. metric/English unit selection(MPH or Km/H, Mile or Km); d. With the instruction of professional technician, the user could conduct the advanced setup to make the motor, controller and apparatus reach the optimum matching.

### 7.2 Start and setup entering

Under the closing condition ,press the button SW it will start. After starts press the button UP and DOWN at the same time(within five seconds) for three seconds, will enter the LCD setup condition(the back light will lighten up automatically when enter the setup condition. The back light will close when exits).

### 7.3 Set the high speed limitation

After enter the setup condition, firstly set the speed limitation, when releases from our factory the highest speed limitation is 25Km/h, this value could be changed by press the button UP or DOWN, when the actual speed becomes more than the limitation, the motor stops working to protect the driver safety.

### 7.4 Wheel diameter setup

After adjustment of speed limitation parameter, press the button SW to enter the wheel diameter setup. Select the corresponding diameter by the button UP or DOWN to guarantee the accuracy of the displayed speed or mile.

### 7.5 Select the indicating unit (metric or English unit)

After adjustment of the wheel diameter, press the button SW to enter selecting option of 'metric or English unit', and press UP or DOWN to choose the unit, the Km/H&MPH is available for the speed. The mile unit will change between Mile and Km in accordance with the speed unit change.

### 7.6 Setup exit

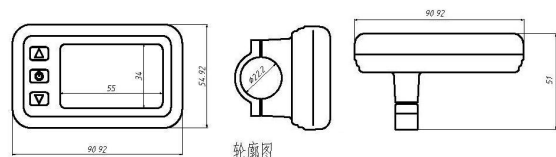
After correctly set the three parameters hereinbefore, press the button SW for 2 seconds to save the adjusted settings and exit from setup condition and return to the operating condition.

## 8. Malfunction code illumination

### 8.1 Malfunction code

- 01\_error abnormal turn signal;
- 02\_error phase lack of motor;
- 03\_error abnormal Hall signal of motor;
- 04\_error abnormal torque sensor signal.

## 9. Appearance and dimension



## 10. Version

10.1 KT\_LCD\_V2.0 Version

10.2 Released on October, 18th, 2011.

Released by cityzenith motor <http://www.czbrushlessmotors.com>